

**IN THE UNITED STATES DISTRICT COURT
FOR THE DISTRICT OF DELAWARE**

ALCOA, INC.,)
)
)
Plaintiff,)
v.) C.A. No. 06-383-SLR
)
ALCAN RHENALU,)
)
)
Defendant.)
)

**DEFENDANT'S REPLY MEMORANDUM OF LAW IN FURTHER SUPPORT
OF ITS MOTION TO DISMISS FOR FAILURE TO STATE A CLAIM
UPON WHICH RELIEF CAN BE GRANTED**

ASHBY & GEDDES
Steven J. Balick (# 2114)
John G. Day (# 2403)
Tiffany Geyer Lydon (# 3950)
222 Delaware Ave., 17th Floor
P.O. Box 1150
Wilmington, DE 19899
Telephone: (302) 654-1888
Facsimile: (302) 654-2067

Steven R. Trybus
Donald R. Cassling
Shelley Smith
Patrick L. Patras
JENNER & BLOCK LLP
330 N. Wabash Avenue
Chicago, IL 60611
Telephone: (312) 222-9350
Facsimile: (312) 840-7631

Attorneys for Defendant Alcan Rhenal

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I. INTRODUCTION

Alcan Rhenalu (hereinafter, “Alcan”) demonstrated in its motion to dismiss and brief in support (D.I. 20, 21), that Alcoa’s Complaint should be dismissed because the accused aluminum alloy made by Alcan (the “2056” alloy) does not infringe any of the claims of Alcoa’s ‘639 patent, as properly construed. In its opposition brief, Alcoa argues that: (1) it is premature to construe the ‘639 claim terms; (2) those claim terms have already been construed; and (3) claim construction would in any event require resort to extrinsic evidence that is impermissible in the context of a Rule 12(b)(6) motion. All three arguments are wrong: (1) the Court may construe claim terms as a matter of law at any time; (2) the relevant claim term at issue (“consisting essentially of”) has never been construed by this Court; and (3) no extrinsic evidence is necessary to construe that claim term.

Alcan also showed that the Complaint should be dismissed because Alcoa failed to properly allege infringement. Alcoa also argued in its opposition, despite contrary language in the body of its Complaint (*see Compl. ¶¶ 50-53*), that it is not suing Alcan for direct infringement or for inducement to infringe but rather only for a declaratory judgment that Alcan’s 2056 alloy “will infringe” Alcoa’s patent. Alcoa therefore argues that it needed only to allege that Alcan was “making meaningful preparation” for an infringing activity. However, Alcoa’s Complaint fails to meet even this minimal standard. Nowhere does Alcoa allege activity by Alcan that would lead to infringement *in the United States*, and it is undisputed that activities elsewhere are not direct infringement. Similarly, Alcoa pled neither direct infringement by Alcan’s potential customers in the United States nor knowledge by Alcan that could constitute preparation to induce any such infringement.

For all of these reasons, Alcoa’s Complaint should be dismissed.

II. ARGUMENT

A. Alcoa's Allegations Of Infringement Are Legally Insufficient And Rebutted By The Very Documents Relied Upon By Alcoa In Support Of Its Complaint.

Alcoa's Complaint should be dismissed because its conclusory allegations of infringement are contradicted by the very documents cited in its Complaint as the source for those allegations.¹ Alcoa argues that the Court should ignore those contradictions and sustain its Complaint based solely on such generalized allegations as that "the composition of [Alcan's accused] alloy is within claims disclosed by Alcoa's '639 patent." (Alcoa Br. at 9.) Alcoa misstates the applicable legal standard.

Courts need not blindly accept allegations as true when ruling on motions to dismiss when those allegations are contradicted by documents referred to in the complaint, as is the case here. *See, e.g., Sprewell v. Golden State Warriors*, 266 F.3d 979, 988-89 (9th Cir. 2001) (granting motion to dismiss where allegations were contradicted by facts stated in document relied on in the complaint); *accord: Steckman v. Hart Brewing, Inc.*, 143 F.3d 1293, 1295-96 (9th Cir. 1998); *Feick v. Fleener*, 653 F.2d 69, 75 (2d Cir. 1981).

¹ Alcoa's argument that its pleading satisfies the "notice pleading" standard of the Federal Rules is irrelevant to the issue raised by Alcan's motion—whether Alcoa's allegations are legally sufficient to state a claim as a matter of law. (Alcoa Br. at 10.) *See e.g., Angstadt v. Midd-West Sch. Dist.*, 377 F.3d 338 (3d Cir. 2004) (granting Rule 12(b)(6) motion where facts alleged would not constitute a violation of the plaintiff's constitutional rights as a matter of law); *City of Pittsburgh v. West Penn Power Co.*, 147 F.3d 256 (3d Cir. 1998). Nor is this a case where the defendant is moving to dismiss a complaint on the grounds that the plaintiff will be unable to prove the allegations made in the complaint. Alcoa's reliance on *Gammino v. Celco Partnership*, No. 04-4303, 2005 WL 2397168, at *2 (E.D. Pa. Sept. 27, 2005) is therefore misplaced.

1. The Composition Of The 2056 Alloy Has Been Established, For Purposes Of This Motion, By The Documents Relied Upon In The Complaint.

Alcoa contends that Alcan's motion should be denied because the Court would be required to resolve a fact issue as to the quantity of zinc in the 2056 alloy. (Alcoa Br. at 12.) But, there is no fact question for the Court to resolve. Alcoa itself provided the Court with unambiguous and consistent evidence of the zinc content of the 2056 alloy in the documents Alcoa relied on in its Complaint: (1) Alcan's application to the Aluminum Association for registration of the alloy (Compl. ¶ 31); (2) Alcan's patent application for this alloy (*id.* ¶¶ 33-34); and (3) the Alcan website showing the alloy (*id.* ¶ 46). All of these documents unambiguously confirm that the 2056 alloy contains a minimum of 0.40% zinc. (Compl. ¶¶ 31, 33-34, 46; D.I. 22, Ex. 10, A318; Excerpt of Alcan's Patent Application for 2056 Alloy, attached as Ex. A; Alcoa Br. Ex. A.) In ruling on this motion, the Court may assume the truth of the statements in these documents.² *See Pryor v. Nat'l Collegiate Athletic Ass'n*, 288 F.3d 548, 560 (3d Cir. 2002); *Pension Benefit Guar. Corp. v. White Consol. Indus., Inc.*, 998 F.2d 1192, 1196-97 (3d Cir. 1993); 5A Charles A. Wright & Arthur R. Miller, *Federal Practice and Procedure* § 1357 (3d ed. 2004).

2. The Proper Construction Of The Relevant Claim Terms Requires Dismissal Given Alcoa's Own Uncontradicted Allegations Of The Composition Of The 2056 Alloy.

Because the Court is entitled to assume for purposes of this motion that the 2056 alloy contains a minimum of 0.40% zinc, there is no infringement as a matter of law if the '639 patent claims are properly limited to alloys containing less zinc. Alcoa argues that it is premature for

² Moreover, there is no need to convert the motion to a motion for summary judgment to consider these materials, because Alcoa "obviously is on notice of the contents of the document, and the need for a chance to refute evidence is greatly diminished." *Pension Benefit Guar. Corp.*, 998 F.2d at 1196-97.

the Court to construe the claims on this motion. Inconsistently, Alcoa also argues that the Court has already fully construed the claims. Alcoa is wrong on both counts.

a. It Is Not Premature To Construe the Claims Based On Intrinsic Evidence That Is Properly Before The Court On This Rule 12(b)(6) Motion To Dismiss.

Alcoa argues that claim interpretation must be made on a “proper record,” suggesting that the Court must resort to some unidentified extrinsic evidence before undertaking claim construction. Alcoa also argues that it is “procedurally” improper for the Court to construe the claims on this motion to dismiss. (Alcoa Br. at 11.) However, claim construction is a question of law, *Markman v. Westview Instruments, Inc.*, 52 F.3d 967, 977 (Fed. Cir. 1995) (*en banc*), *aff’d*, 517 U.S. 370 (1996), and courts routinely decide issues of law on Rule 12(b)(6) motions. *See, e.g., Angstadt v. Midd-West Sch. Dist.*, 377 F.3d 338 (3d Cir. 2004). And, Alcoa must concede that the Court is to resort to extrinsic evidence only if it cannot determine the meaning of claim terms from the intrinsic evidence. *Bell Atl. Network Servs., Inc. v. Covad Commc’ns Group, Inc.*, 262 F.3d 1258, 1269 (Fed. Cir. 2001); *Vitronics Corp. v. Conceptronic, Inc.*, 90 F.3d 1576, 1584 (Fed. Cir. 1996). Because Alcoa has failed to offer any reason why the intrinsic evidence already before the Court is insufficient to construe the claim language at issue here, Alcoa’s argument that claim construction is premature should be rejected.³

³ Alcoa’s reliance on *Bayer AG v. Biovail Corp.*, 279 F.3d 1340 (Fed. Cir. 2002), is misplaced. (Alcoa Br. at 12.) In *Bayer*, the claim construction issue had not been decided by the district court, and the case therefore addressed whether it was premature for the Federal Circuit to decide that issue on appeal. *Bayer* did not address the issue of when it is premature for a trial court to decide claim construction.

b. The Court Did Not Construe The Relevant Claim Terms In The Prior Litigation—There Is No Res Judicata Bar To This Motion.

Inconsistently, Alcoa also argues that complete and binding claim construction has already occurred in the prior litigation between the parties. (Alcoa Br. at 11, 13-14.) Alcoa's argument is without merit, because the claim construction rulings from the prior litigation did not address the meaning of "consisting essentially of," the claim term at issue on this motion. *See Pechiney Rhenalu v. Alcoa Inc.*, 224 F. Supp. 2d 773, 799 (D. Del. 2002).

Even though it is clear that the Court never included "consisting essentially of" in its discussion of the claim terms it *did* construe in the prior litigation, Alcoa tries to twist one of the Court's prior *findings of fact* into a claim construction relevant to the present motion: "The tightest compositional limits *recited* by the asserted claims are: 4.0-4.5% Cu, 1.2-1.5% Mg, 0.4-0.7% Mn, maximum 0.15% Fe and maximum 0.12% Si." *Id.* at 793 (emphasis added). Alcoa's argument that this is a binding relevant claim construction is wrong, because: (1) this was clearly only a finding of fact and was not included in the same section of the Order that construed other claim terms (the Court's Conclusions of Law); and (2) this particular factual finding does nothing more than repeat a portion of Claim 99.⁴ It is not a construction of the claim term "consisting essentially of" or any other claim language.

Because the Court never previously construed the term "consisting essentially of," the Court's earlier ruling can have no preclusive effect on the construction of "consisting essentially of" in this litigation. *See Del Mar Avionics, Inc. v. Quinton Instrument Co.*, 836 F.2d 1320, 1324

⁴ Alcoa also argues that claim terms are not construed by reference to the accused device. (Alcoa Br. at 14.) However, that argument has no relevance here. This is not a case where the Court previously construed "consisting essentially of" in the context of determining infringement of another alloy and Alcan is now seeking a different construction simply because the 2056 alloy is different than the 2024A alloy previously at issue. Here, the Court has never construed the claim term at issue.

(Fed. Cir. 1987) (“[w]here the second action between the same parties is upon a different claim or demand, the judgment in the prior action operates as an estoppel only as to those matters in issue or points controverted, upon the determination of which the finding or verdict was rendered.”).

3. Alcoa Limited Its Claims To Alloys Containing No More Than 0.25% Zinc In The Patent Specification.

Based upon the ‘639 patent and its prosecution history, the ‘639 claim term “consisting essentially of” limits the zinc content of the claimed alloys to a maximum of 0.2 or 0.25%. (Compl. Ex. A, col. 3, lns. 22-23.) Because it is undisputed on this motion that the 2056 alloy contains twice that amount of zinc, Alcoa’s allegations of infringement fail as a matter of law.

That this is so is demonstrated by a Federal Circuit decision that is on all fours with the present case. *AK Steel Corp. v. Sollac*, 344 F.3d 1234 (Fed. Cir. 2003), dealt with a patent for aluminum-coated stainless steel. The patent claims in that case did not expressly list a limitation for silicon content, but the court construed them to contain a limitation for silicon based on its construction of the claim term “consisting essentially of” *read in light of the patent specification*. *Id.* at 1239-40. The court found that the basic and novel properties of the invention were disclosed *in the specification*, and that the specification indicated that, between two types of aluminum, each containing a different quantity of silicon, one was preferred to achieve the basic and novel properties of the invention. *Id.* Based upon its analysis of the patent specification, the court held:

the specification draws a precise line between those two materials, demarking the exact percentage of silicon that the inventors considered to be too much silicon, when it states, “[s]ilicon contents in the coating metal should not exceed about 0.5% by weight.” *Id.* at col 5, ll. 33-34. On the basis of that statement, we conclude that silicon in excess of 0.5% by weight would materially alter the basic and novel properties of the invention, and that the

claims of the ‘135 patent must therefore be interpreted to permit no more than 0.5% silicon by weight in the aluminum coating.

Id. at 1240.

Similarly, each of the ‘639 claims in this case recite an alloy “consisting essentially of” a permissible range for copper, magnesium and manganese with the “balance” of the alloy “essentially” or “substantially” “aluminum,” “incidental elements” and “impurities.” (Compl., Ex. A.) Zinc is not expressly mentioned in any of the claims.⁵ However, the ‘639 specification does address the basic and novel properties of the claimed alloys, and discloses the exact amount of incidental elements and impurities, including zinc, that would be “too much” in order to achieve those basic and novel properties:

Impurity element Zn [zinc] preferably has a maximum of 0.2 or 0.25%

(Compl. Ex. A, col. 3, lns. 22-23.) This intrinsic evidence dictates that if zinc is present in an amount in excess of 0.25% it would materially alter the alloy’s basic and novel properties.

Alcoa attempts to avoid this clear language by arguing that, unlike the situation in *AK Steel*, the specification of the ‘639 patent does not indicate that the basic and novel properties of the invention could not be achieved if the alloy contained more than 0.25% zinc. (Alcoa Br. at 21-22.) This assertion is incorrect. As this Court emphasized in the prior litigation between the parties, “The ‘639 patent discloses an aluminum alloy composition with *reduced impurities to minimize insoluble particles* and controlled levels of allowing elements combined with a

⁵ Alcoa argues that there cannot be a zinc limitation in the claims because zinc is not one of the five elements that are expressly identified in the claim itself as having compositional limits. (Alcoa Br. at 13, 16.) This argument ignores the fact that the zinc limitation is inherently present in the “consisting essentially of” limitation. Silicon was also not an expressly listed claim element in *AK Steel*, but the court in that case nevertheless found that the specification presented a maximum amount of that unlisted element that the claimed alloy could permissibly contain because of the “consisting essentially of” limitation.

manufacturing process that includes an intermediate high-temperature reheating step to minimize undissolved soluble particles.” 224 F. Supp. 2d at 792 (emphasis added). That is, the ‘639 patent purports to achieve its invention in large part through minimizing impurities, and when the specification states the exact percentage of zinc that is “too much” to achieve its invention, the result is that the specification dictates that any more zinc would materially alter the basic and novel properties of the invention.

Alcoa also accuses Alcan of improperly reading a zinc limitation into the claims from a preferred embodiment. (Alcoa Br. at 14-16.) It is well settled, however, that the scope and outer boundary of the claims is set by the patentee’s description of his invention. *On Demand Mach. Corp. v. Ingram Indus.*, 442 F.3d 1331, 1340 (Fed. Cir. 2006). Accordingly, the Federal Circuit routinely limits claims to preferred embodiments where, as here, the specification does not support any alternative. See, e.g., *Inpro II Licensing, S.A.R.L. v. T-Mobile USA, Inc.*, 450 F.3d 1350, 1354-55 (Fed. Cir. 2006) (construing claims as limited to “parallel bus interface” where it was the only option described in specification); *Microsoft Corp. v. Multi-Tech Sys., Inc.*, 357 F.3d 1340, 1348 (Fed. Cir. 2004) (limiting claims to communications over a standard telephone line where specification referred to such a system and did not suggest use of alternative packet-switched network); *Bell Atl.*, 262 F.3d at 1273 (finding that claims describing invention’s “modes” were not entitled to any broader scope than the three modes described in the preferred embodiments; usage of the word “‘preferred’ does not of itself broaden the claims beyond their support in the specification.”); *Watts v. XL Sys. Inc.*, 232 F.3d 877, 882-83 (Fed. Cir. 2000) (finding claims limited to structures utilizing misaligned taper angles where, although specification stated that they “may” be used, patent did not disclose any alternative

embodiment). Here, Alcoa did not disclose any embodiment where an alloy had more than 0.25% zinc.

Moreover, in *AK Steel*, a preferred embodiment disclosed in the specification was used to construe the term “consisting essentially of” and to determine the amount of an unlisted element that would materially alter the basic and novel properties of the invention.⁶ None of Alcoa’s cases provide any support for its contrary position. Indeed, none even construe “consisting essentially of.” And, as Alcoa’s own cases show, it is entirely proper to use the specification to interpret the claims.

4. Alcoa Limited Its Claims To Alloys Containing No More Than 0.25% Zinc In The Prosecution History.

A review of the ‘639 prosecution history confirms that, properly construed, the claims are limited to alloys containing no more than 0.25% zinc. During the prosecution, Alcoa amended its claims and disclaimed any alloys containing elements in amounts outside the ranges listed in the AA2024 registration, in order to obtain allowance of the claims over the prior art Cho patent. Alcoa now tries to avoid that prosecution history by arguing that it was only limiting the lithium content and not the elements in general, but that was not what it told the PTO. Alcoa should not be permitted to argue a narrow construction before the PTO and now argue for a much broader construction to support its claim of patent infringement. *Lockwood v. Am. Airlines, Inc.*, 107 F.3d 1565, 1573 (Fed. Cir. 1997) (“Claims may not be construed one way in order to obtain their

⁶ Alcoa is incorrect to the extent it suggests that whether zinc in the amount present in the 2056 alloy would materially alter the basic and novel properties of the ‘639 patent is a question of fact that cannot be determined on this motion to dismiss. (Alcoa Br. at 21.) As the Federal Circuit held in *AK Steel*, the determination of whether the addition of a certain amount of an unlisted element materially alters the basic and novel properties of the invention is *not* an issue of fact where “the specification directly speaks to and conclusively answers that question.” 344 F.3d at 1240.

allowance and in a different way against accused infringers") (quoting *Southwall Techs., Inc. v. Cardinal IG Co.*, 54 F.3d 1570, 1576 (Fed. Cir. 1995)).

It is clear from the prosecution history that the basis on which Alcoa distinguished its claims from the prior art Cho patent was that the "consisting essentially of" phrase limited the claims to the "Al-Cu-Mg alloys or alloy 2024." (D.I. 22, Ex. 3, A92-94.) Significantly, in seeking to distinguish Cho, Alcoa did not argue that lithium was the *only* element on the AA registration list for the 2024 alloy that would take an alloy outside the scope of its invention, nor did it amend the claims to only exclude or limit the amount of lithium. To the contrary, in seeking allowance of its claims, Alcoa took the position with the PTO that its invention was limited to the "Al-Cu-Mg alloys or alloy 2024." (*Id.*)

Specifically, in August of 1991, the PTO rejected all of the pending claims as anticipated over the Cho patent on the grounds that "Cho discloses process steps for alloy AA2024 involving hot working, reheating the alloy, a second hot working, solution heat treating, rapid cooling, and natural aging with process times and temperatures that overlap applicants' claimed procedure for these Al-Cu-Mg alloys." (D.I. 22, Ex. 2, A50-51.) Thus, the PTO treated Alcoa's claimed Al-Cu-Mg alloys as equivalent to the AA2024 alloy in its analysis. In response, Alcoa argued that the Examiner had assumed

that Cho discloses processing steps for AA2024 or Al-Cu-Mg alloys, and it is respectfully submitted that this assumption is incorrect . . . ***Cho's alloys by definition contain more lithium than is allowable in alloy 2024. AA registration limits for alloy 2024 limit elements not listed to a maximum of .05% each. . . .***

(D.I. 22, Ex. 3, A92-93.) (emphasis added). In these statements, Alcoa conceded that the claims, as amended to incorporate the phrase "consisting essentially of," which specifically restricts the amount of an unlisted element in a composition claim to an amount that will not materially affect the basic and novel properties of the invention, were limited to the AA2024 registration limits.

Alcoa attempts to avoid this clear concession by arguing that its statements to the patent examiner were too ambiguous to satisfy the standard for prosecution disclaimer.⁷ (Alcoa Br. at 18.) However, the test is not the subjective interpretation that *Alcoa* would now give its own statements, but rather the interpretation that would be placed on them by a competitor. *See, e.g.*, *Haynes Int'l, Inc. v. Jessop Steel Co.*, 8 F.3d 1573, 1578 (Fed. Cir. 1995) (“The legal standard for determining what subject matter was relinquished is an objective one, measured from the vantage point of what a competitor was reasonably entitled to conclude, from the prosecution history, that the applicant gave up to procure issuance of the patent.”); *see also Omega Eng'g, Inc. v. Raytek Corp.*, 334 F.3d 1314, 1326 n.1 (Fed. Cir. 2003). Where that interpretation is “clear and unmistakable,” prosecution disclaimer will result. *Omega Eng'g*, 334 F.3d at 1325-26. Here, the “clear and unmistakable” meaning of Alcoa’s amendment, and its arguments, is that Alcoa disclaimed coverage for Al-Cu-Mg or 2024 alloys containing elements outside the AA2024 registration limits.

Indeed, the Federal Circuit rejected an argument identical to the one now being made by Alcoa in *Norian Corp. v. Stryker Corp.*, 432 F.3d 1356 (Fed. Cir. 2005). In *Norian*, the patentee argued that because the sole purpose of its claim amendment was to avoid the prior art reference, the claim should be construed only as narrowly as required to avoid that reference. 432 F.3d at 1361. The court disagreed, explaining its reasoning as follows:

⁷ Even if there were any ambiguity in Alcoa’s statements, which there is not, the “clear and unmistakable” standard would not aid Alcoa in an infringement by doctrine of equivalents analysis, as it argues. (Alcoa Br. at 18.) The rule that disavowing statements made in the prosecution history must be clear and unmistakable does not apply to estoppel by amendment, *Festo Corp. v. Shoketsu Kinzoku Kogyo Kabushiki Co.*, 535 U.S. 722, 736 (2002); *Salazar v. Procter & Gamble Co.*, 414 F.3d 1342, 1344 (Fed. Cir. 2005), and Alcoa narrowed its claims by amendment to alloys “consisting essentially of,” rather than simply “containing,” the listed elements. Thus, Alcoa is precluded from availing itself of the doctrine of equivalents for that claim limitation because it narrowed its claims by amendment during prosecution.

The problem with that argument is that there is no principle of patent law that the scope of a surrender of subject matter during prosecution is limited to what is absolutely necessary to avoid a prior art reference that was the basis for an examiner's rejection. To the contrary, it frequently happens that patentees surrender more through amendment than may have been absolutely necessary to avoid the prior art. In such cases, we have held the patentees to the scope of what they ultimately claim, and we have not allowed them to assert that claims should be interpreted as if they had surrendered only what they had to.

Id. (citations omitted).

Moreover, if Alcoa had actually intended to limit its claims only with respect to the lithium content of the alloy, as it now claims was its intent, it could have simply amended its claims to add a compositional limit for lithium, in addition to the compositional limits it already had in place for copper, manganese, magnesium, iron and silicon, rather than adding the "consisting essentially of" limitation. *Cf. Norian*, 432 F.3d at 1359 ("If the patentee had meant to claim the use of at least one type of sodium phosphate in the recited solution, it would have been simple to use the same language in the second portion of the claim that was used in the first.") Alcoa cannot now rewrite its claims.

5. Alcoa Should Be Judicially Estopped From Now Denying That Its Claims Are Limited To Alloys Containing No More Than 0.25% Zinc.

Finally, the limitation on the permissible amount of zinc is established not only by the intrinsic evidence, but also by Alcoa's admissions during the prior litigation. Under the doctrine of judicial estoppel, a patent holder cannot take a position successfully on the scope of its patent in one judicial proceeding and then attempt to abandon that position to gain an advantage in a subsequent proceeding. *Interactive Gift Express, Inc. v. Compuserve Inc.*, 256 F.3d 1323, 1349 (Fed. Cir. 2001); *Key Pharms. v. Hercon Labs. Corp.*, 161 F.3d 709, 715 (Fed. Cir. 1998).

As demonstrated in Alcan's opening brief, Alcoa took the position in the prior litigation that its '639 patent was limited to the 2x24 family of alloys, by arguing that alloys outside the

2x24 family were irrelevant. (Alcan Br. at 15-17.) When Alcan moved to compel production of documents outside the 2x24 family, the Court denied the motion. (D.I. 22, Ex. 14, A431.) In the meantime, Alcoa had agreed to produce documents concerning three alloys it considered to be modifications or improvements upon the 2x24 family of alloys -- Alcoa's 2524 alloy, Pechiney's 2024A alloy and the 2048 alloy. (D.I. 22, Ex. 13, A416-17.) Notably, the AA registrations for the entire 2x24 family and the 2048 alloy show that each of these alloys has no more than 0.25% zinc. (D.I. 22, Ex. 10, A318, 337.)

In its opposition, Alcoa accuses Alcan of distorting the record. (Alcoa Br. at 19.) Alcoa's accusation is baseless. First, Alcoa makes no attempt to explain any of the statements Alcan cited from Alcoa's objections. These objections include the clear and unequivocal statement that: "Of the 2xxx series, *the '639 patent refers only to 2024.*" (D.I. 22, Ex. 11, A365) (emphasis added). Second, the quote Alcoa relies on from the inventor Robert Westerlund simply mentions Alcoa's agreement, in the face of a motion to compel, to produce documents concerning two alloys, 2524 and 2024A, that he previously found would "properly be referred to as 2x24 alloys," (D.I. 22, Ex. 12, A406), and another, 2048, that he found to be an improvement on the 2024 alloy, as were 2524 and 2024A.⁸ Westerlund does not say that 2048 is covered by the '639 patent, nor could he, as the AA registration for this alloy demonstrates that it does not meet the compositional limits for copper and manganese set forth in the claims. (D.I. 22, Ex. 10, A337.)

⁸ Alcoa's assertion that Alcan's brief contained an "incomplete" quote from an in-court statement made by Alcoa's counsel (Alcoa Br. at 19) is without merit. Indeed, Alcan's brief did not even contain the quote about which Alcoa complains. Instead, it only referenced the transcript, which was provided in full (along with the complete quote) in the appendix. (Alcan Br. at 15; D.I. 22, Ex. 13.)

Finally, Alcoa argues that its claims must be construed to include Alcan's 2056 alloy because the alloy is designed to be an improvement on 2024, just like 2048. This argument is without merit because an improvement on the 2024 alloy that stays within the 2x24 family of alloys is very different from an alloy that, according to the documents relied upon by Alcoa, contains zinc in amounts that far exceed AA2024 registration (or any other 2x24 family member) limits.

B. Alcoa's Allegations Fail To State A Claim For A Declaratory Judgment Of Infringement.

As a second, and independent, basis for granting the present motion, the Complaint does not properly allege infringement, inducement to infringe, or even meaningful preparation for infringement or inducement to infringe.

Alcoa attempts to avoid its failure to properly allege actual infringement or inducement to infringe in its Complaint by now claiming (despite contrary language in its Complaint)⁹ that it is seeking only declaratory relief, and it therefore need not allege actual infringement. To the extent that the Court disagrees, Alcoa's Complaint should be dismissed for the reasons stated in Alcan's opening brief. However, even if the Court accepts Alcoa's statement that its Complaint seeks only declaratory relief, the Complaint should still be dismissed, because it fails to meet even the minimal pleading standards governing suits for declaratory judgment.

To state a claim for a declaratory judgment of infringement, Alcoa's Complaint must have alleged that Alcan is "engaged in an activity directed toward making, selling, or using *subject to an infringement charge under 35 U.S.C. § 271(a)* ... or [is] making meaningful

⁹ For example, the Complaint contains two counts designated as "Infringement" and "Active Inducement." (Compl. ¶¶ 50-53.) In Count I of the Complaint entitled, "Infringement," Alcoa claims that Defendants have prepared to offer for sale aluminum alloy products "*that infringe* Alcoa's United States Patent No. 5,213,639 either literally or under the doctrine of equivalents, *in violation of 35 U.S.C. §271(a).*" (Compl. ¶ 51) (emphasis added).

preparation for such activity....” *Lang v. Pac. Marine & Supply Co., Ltd.*, 895 F.2d 761, 764 (Fed. Cir. 1990) (emphasis added). Alcoa’s Complaint does not satisfy this test because it does not allege any activity that, now or when completed, would amount to infringement.

Direct infringement occurs where one “without authority makes, uses, offers to sell, or sells any patented invention, *within the United States or imports into the United States* any patented invention during the term of the patent....” 35 U.S.C. § 271(a) (emphasis added). Thus, acts that might constitute infringement if committed in the United States will not constitute infringement if committed elsewhere. *Deepsouth Pkg. Co. v. Laitram Corp.*, 406 U.S. 518, 531 (1972) (holding that the patent statute is not concerned with competition in “foreign markets”); *Rotec Indus., Inc. v. Mitsubishi Corp.*, 215 F.3d 1246, 1251 (Fed. Cir. 2000) (“These extra-territorial activities however, are irrelevant to the case before us, because ‘[t]he right conferred by a patent under our law is confined to the United States and its territories, and infringement of this right cannot be predicated [on] acts wholly done in a foreign country.’”) (citation omitted). It is, for example, not direct infringement to sell a product that meets the claims to a foreign customer outside of the United States. *Int’l Rectifier Corp. v. Samsung Elecs. Co., Ltd.*, 361 F.3d 1355, 1358, 1360-62 (Fed. Cir. 2004) (finding that defendant did not violate terms of an injunction by selling an infringing product outside of the United States). Alcoa’s Complaint must be dismissed because it fails to allege any acts that would lead to infringing activity *in the United States*.

1. Alcoa’s Allegations Relating To Foreign Customers, And Not Activity Directed At The United States, Fail To Establish Direct Infringement Or Meaningful Steps Toward Direct Infringement.

Alcoa’s allegations that Alcan has (1) “manufactured the offending product,” (2) “offered it for sale,” and (3) “has supplied it ‘in commercial quantities’” are legally insufficient to support a Complaint for a declaratory judgment of infringement because Alcoa does not allege any

“meaningful steps” toward direct infringement *in the United States*. (Alcoa Br. at 7). Similarly, Alcoa’s allegations that Alcan “has ‘actively marketed’ [2056] ‘on the internet, at industry conferences and in face-to-face meetings’ with potential customers” fail because these allegations too fail to demonstrate meaningful steps toward direct infringement in the United States. (*Id.*, citing Compl. ¶¶ 36-38.)

Indeed, the allegations in the Complaint demonstrate on their face that Alcan’s alleged activities occurred almost exclusively overseas. For example, Alcoa references a meeting in Paris with a Chinese aircraft manufacturer and other foreign aircraft manufacturers. (See Compl. ¶¶ 37-38.) Additionally, Alcoa alleges that Alcan provided samples to foreign aircraft manufacturers, Airbus and Embraer, and that these companies have performed tests on the 2056 alloy. (Alcoa Br. at 7, citing Compl. ¶ 47.) But such activities outside the United States are simply not direct infringement nor do they constitute “meaningful steps” toward direct infringement. *See, Int'l Rectifier Corp.*, 361 F.3d at 1358, 1360-62; *Rotec. Indus., Inc.*, 215 F.3d at 1251.

2. Neither The Seattle Technical Presentation Nor Alcan’s Website Constitutes Direct Infringement Or Meaningful Steps Towards Direct Infringement.

The closest that Alcoa comes to claiming any activity that potentially could constitute steps toward direct infringement in the United States is its allegation that Alcan made a presentation relating to technical aspects of the 2056 alloy in Seattle in 2004. (See Alcoa Br. at 7, citing Compl. ¶ 39.) But even that allegation is insufficient because, as a matter of law, that presentation did not constitute a sale or offer to sell 2056 *in the United States*, nor even steps toward such. And, most importantly, Alcoa nowhere alleges that it does.

An offer for sale that can trigger infringement liability is one which the other party could make into a binding contract by simple acceptance. *MEMC Elec. Materials, Inc. v. Mitsubishi*

Materials Silicon Corp., 420 F.3d 1369, 1376 (Fed. Cir. 2005) (“Accordingly, on their face, the e-mails cannot be construed as an ‘offer’ which Samsung Austin could make into a binding contract by simple acceptance.”) (citation omitted). From the face of Alcoa’s Complaint and the documents referenced therein (*see* Seattle Technical Presentation, attached as Ex. B), it is undisputed that the 2004 Seattle presentation contained no price term and no quantity term. Therefore, as a matter of law, further negotiations would have been necessary to form a binding contract. Alcoa nowhere alleges that any such negotiations ever took place. The Seattle presentation was not an actionable offer for sale. *MEMC Elec. Materials, Inc.*, 420 F.3d at 1376. Apparently realizing that it can twist the document evidencing that presentation only so far, Alcoa does not even allege that that presentation constituted an offer for sale of the 2056 alloy in the United States.¹⁰

Alcoa also suggests that its allegation that the Alcan website contains a “Global Offer” of the 2056 alloy “stating that the product is ‘available’ and that it can be ‘delivered’” is sufficient to establish activities by Alcan to make sales in the United States. (Alcoa Br. at 7, citing Compl. ¶ 46.) However, that argument fails for two reasons. First, a description of a product as “available” on the World Wide Web does not constitute an offer for sale in the U.S. Cf. *E.I. DuPont de Nemours & Co. v. Rhodia Fiber & Resin Intermediates, S.A.S.*, 197 F.R.D. 112, 122 (D. Del. 2000) (holding that French corporation’s website did not constitute solicitation of business in Delaware). In fact, the only Alcan office referenced on the website page that describes the alloy is in Paris. (Alcoa Br., Ex. A.) Readers who access the site are advised to

¹⁰ Alcoa notes that the presentation uses the word “offer.” (See Alcoa Br. at 7.) It is clear from reviewing the presentation, however, that the sole time that that word was used in the Seattle presentation, it was used only in the sense of describing the physical characteristics “offered” by four different Alcan alloys, and cannot conceivably be twisted into meaning an “offer for sale.” (See Ex. B, Slide 13.)

consult their local Alcan representative for more information, but there is no indication on the site that any Alcan representatives in the U.S. will be able to sell the alloy. (*Id.*) Second, as is the case for the Seattle presentation, the language used on the site does not contain any price or quantity term and cannot be construed to constitute an “offer for sale” within the United States. *See MEMC Elec. Materials, Inc.*, 420 F.3d at 1376.

C. Alcoa Has Not Alleged That Alcan Has Engaged In Any Meaningful Steps To Actively Induce Infringement.

Alcoa has also failed to allege any Alcan activities that could qualify as meaningful steps toward active inducement of infringement. Alcoa has not alleged that any potential customer of Alcan’s has infringed or will infringe in the future. Additionally, Alcoa has not alleged that Alcan has the requisite knowledge and intent necessary for an active inducement claim.

1. Alcoa Has Failed To Allege Direct Infringement On The Part Of Alcan’s Potential Customers.

In order to demonstrate that Alcan’s activities outside of the United States somehow constitute meaningful steps toward Alcan’s inducement of infringement by a third party, Alcoa must allege facts showing that, eventually, that induced third party would directly infringe *in the United States*. *Joy Techs., Inc. v. Flakt, Inc.*, 6 F.3d 770, 774 (Fed. Cir. 1993). Thus, in order to prevail on its inducement claim, Alcoa must allege that one of Alcan’s potential foreign customers¹¹ would directly infringe the ‘639 patent by *importing into the United States, or using, or selling, or offering for sale in the United States* an alloy, or planes or other products made of such an alloy, that meet all of the limitations of the claims. Alcoa’s allegations, taken to be true on this motion, are not sufficient to satisfy this requirement.

¹¹ Alcoa does not allege any facts relating to U.S.-based customers.

Alcoa makes *no* allegations whatsoever that any of Alcan's potential foreign customers would import, use, sell or offer to sell in the United States planes or any other product containing the allegedly infringing 2056 alloy.¹² All that Alcoa alleges is that two of these foreign customers "derive substantial revenues from aircraft sales in the United States." (Compl. ¶ 47.) This, of course, is not an allegation of direct infringement, and indeed Alcoa does not even allege that any of that revenue would be attributable to sales of planes containing the 2056 alloy. Moreover, Alcoa's allegation as stated necessarily presupposes that these potential foreign customers also derive revenue from countries outside of the United States. As a result, even if Alcoa had alleged that these customers were prepared to sell airplanes containing 2056, which Alcoa does not allege, such sales could occur outside of the U.S. and therefore still not infringe.

2. Alcoa Has Failed To Sufficiently Allege That Alcan Would Have Knowledge Or Constructive Knowledge Of Any Direct Infringement.

Finally, even if Alcoa had alleged potential direct infringement by Alcan's customers, it has failed to allege that Alcan "*knowingly* induced infringement" *with the intent to cause* the infringement. *MEMC Elec. Materials, Inc.*, 420 F.3d at 1378 (emphasis added). In order to properly plead this requirement of Section 271(b), Alcoa must allege facts showing that Alcan "knew or should have known [its] actions would induce actual infringements." *Manville Sales Corp. v. Paramount Sys., Inc.*, 917 F.2d 544, 553 (Fed. Cir. 1990); *see also Ferguson Beauregard/Logic Controls, Inc. v. Mega Sys., LLC*, 350 F.3d 1327, 1342 (Fed. Cir. 2003) ("[T]o

¹² Even if these foreign customers were to fly their planes regularly to and from the United States, that would not constitute infringement. Congress has explicitly declared that, in most instances, simply flying planes into and out of the United States cannot be the basis of a patent infringement claim. 35 U.S.C. § 272; *see also Cali v. Japan Airlines, Inc.*, 380 F. Supp. 1120, 1126-27 (E.D.N.Y. 1974) (involving an allegedly infringing modification to jet engines and finding that no infringement had occurred where planes simply made regular trips to and from the United States). Therefore, to sufficiently state a claim for a declaratory judgment of active inducement, Alcoa must allege meaningful steps taken toward importing, selling or offering planes for sale in the United States. Alcoa nowhere makes that allegation in its Complaint.

be found liable under § 271(b), ‘a patentee must show that the individual charged with inducement . . . knew or should have known that [its] actions would induce direct infringement’ . . . ”) (citation omitted). Alcoa’s allegations do not satisfy this requirement.

Instead, as discussed above, Alcoa alleges only that Alcan’s potential customers derive substantial revenue from aircraft sales in the United States. This allegation is insufficient on its face to establish that Alcan knows or should know that one or more of these potential customers would *import, use, sell or offer for sale* planes containing 2056 in the United States.

CONCLUSION

For the foregoing reasons, Alcoa’s Complaint should be dismissed with prejudice.

ASHBY & GEDDES

/s/ Tiffany Geyer Lydon

Of Counsel:

Steven R. Trybus
 Donald R. Cassling
 Shelley Smith
 Patrick L. Patras
 JENNER & BLOCK LLP
 330 N. Wabash Avenue
 Chicago, IL 60611
 Telephone: (312) 222-9350
 Facsimile: (312) 840-7631

Steven J. Balick (# 2114)
 John G. Day (# 2403)
 Tiffany Geyer Lydon (# 3950)
 222 Delaware Ave., 17th Floor
 P.O. Box 1150
 Wilmington, DE 19899
 Telephone: (302) 654-1888
 Facsimile: (302) 654-2067

Attorneys for Defendant Alcan Rhenalu

Dated: December 8, 2006
 175903.1

EXHIBIT A

Inventors:
 Timothy Warner Bernard Bes
 Ronan Dif Hervé Ribes

Attorney Docket No. 22130/00027

[0016] The addition of silver is said to improve the properties of this alloy. However, silver is an expensive element and it limits the recycling of products obtained in this way and production waste from these products, which even further contributes to increasing the cost price of the products.

SUMMARY OF THE INVENTION

[0017] A purpose of this invention was to obtain aircraft structural members, and particularly fuselage members comprising an AlCuMg alloy with an improved damage tolerance, at least an equivalent mechanical strength, and improved resistance to corrosion in comparison with the prior art, without the need to add expensive elements that are problematic for recycling.

[0018] In accordance with these and other objects, the present invention is directed toward a work-hardened product, and particularly in some embodiments, a rolled, extruded or forged product, made of an alloy with the following composition (% by weight):

Cu 3.80 - 4.30 , Mg 1.25 - 1.45 , Mn 0.20 - 0.50 , Zn 0.40 ~ 1.30 , Zr ≤ 0.05 , Fe < 0.15 , Si < 0.15 , Ag < 0.01.

other elements < 0.05 each and < 0.15 total,

remainder Al,

the product optionally being treated by solution heat treatment, quenching and cold strain-hardening, with a permanent deformation of between 0.5% and 15%, and preferably between 1% and 5%, and even more preferably between 1.5% and 3.5%. Cold strain-hardening can be achieved, for example, by controlled stretching and/or cold transformation, for example rolling or drawing.

[0019] In further accordance with the present invention there is provided a structural member suitable for aeronautical construction, particularly an aircraft fuselage member, made from such a work-hardened product, and particularly from such a rolled product.

EXHIBIT B



Advanced Metallic Solutions for Fuselage Skins

Sjoerd van der Veen, Hervé Ribes,
Bernard Bes, Tim Warner



Outline

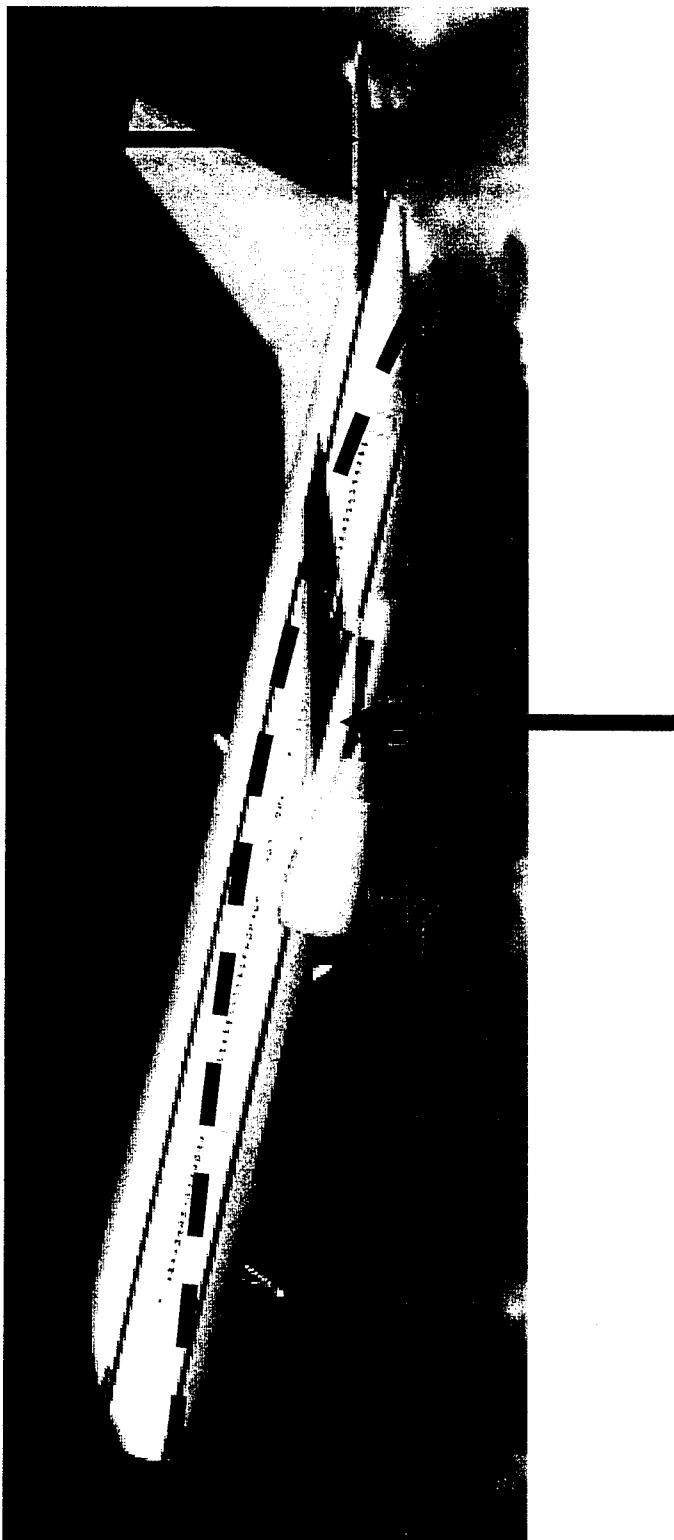


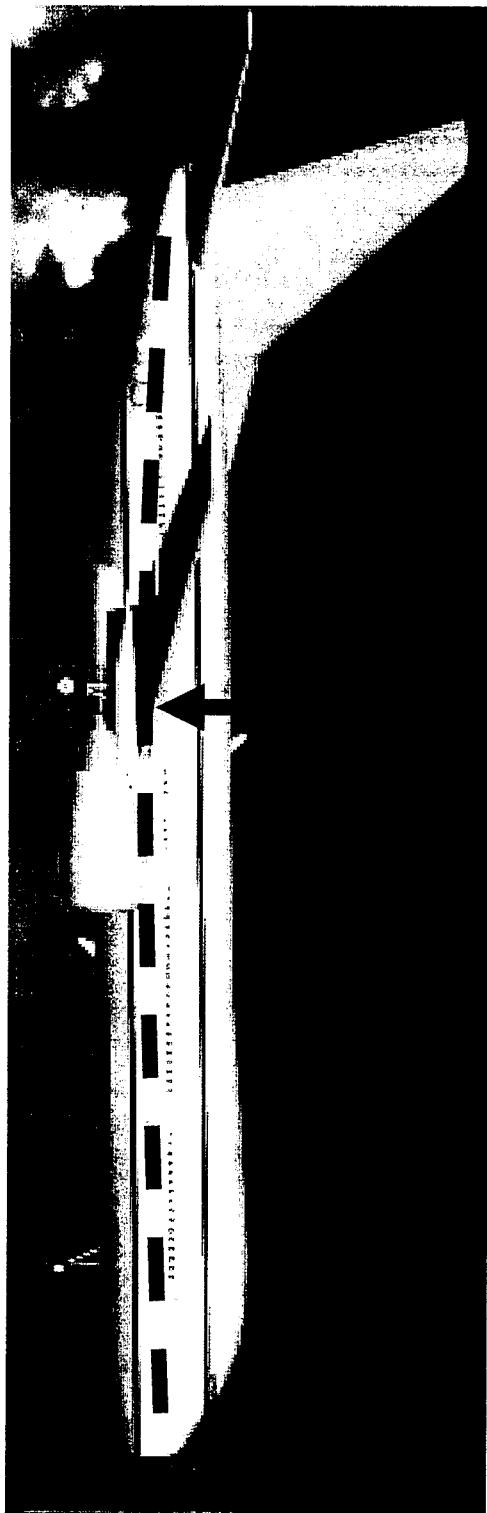
- > Review of design drivers for fuselage skin
 - Load cases
 - Consequences for skin property requirements
- > Review of proposed skin solutions
 - Static properties
 - Damage tolerance properties
- > Summary
- > Ideas for further weight reductions



Conventional Transport Fuselage

n 2.5

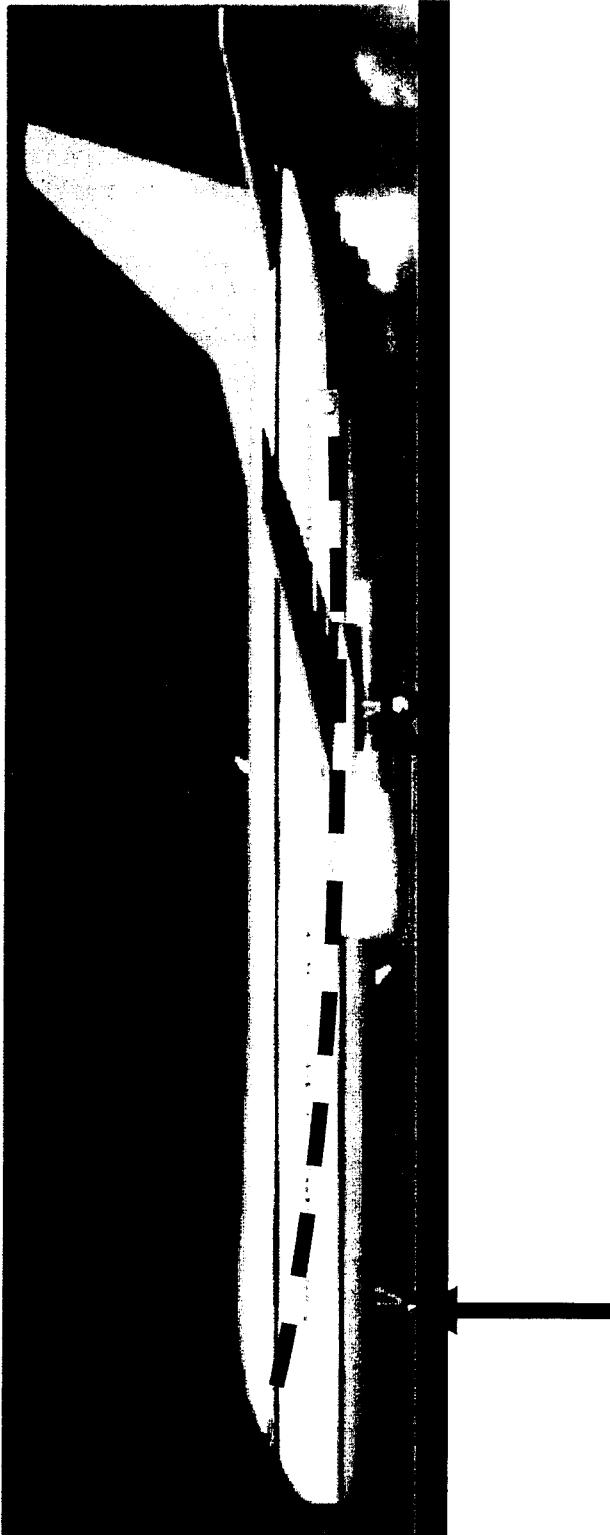




n^{-1} A mathematical expression n^{-1} followed by a downward-pointing arrow, indicating a process or flow direction.



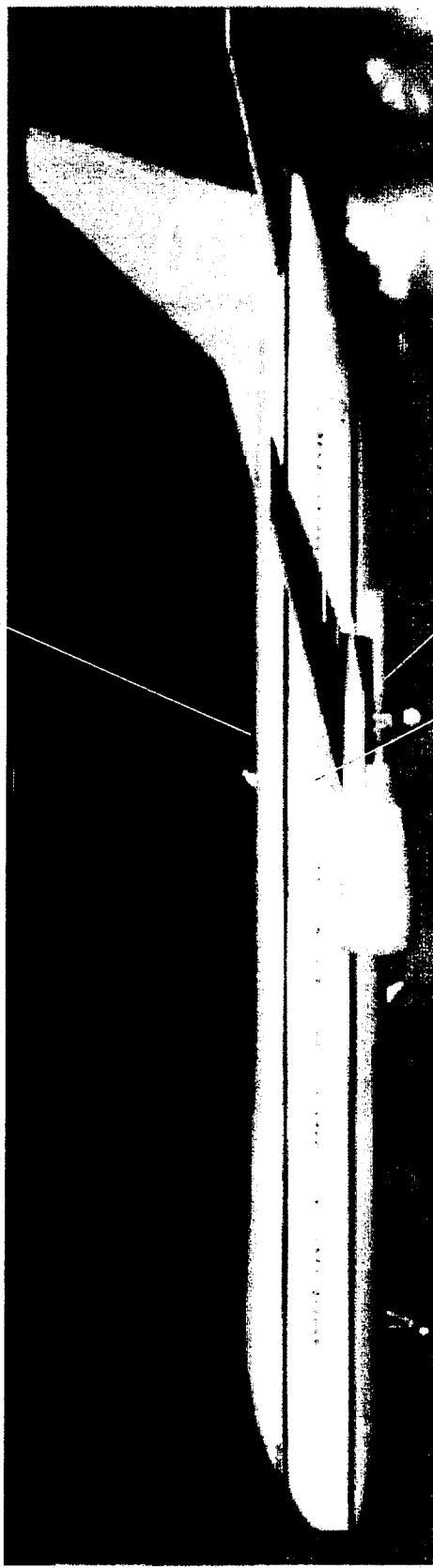
Ground cases: Emergency breaking





Dominant Loads

tension



compression

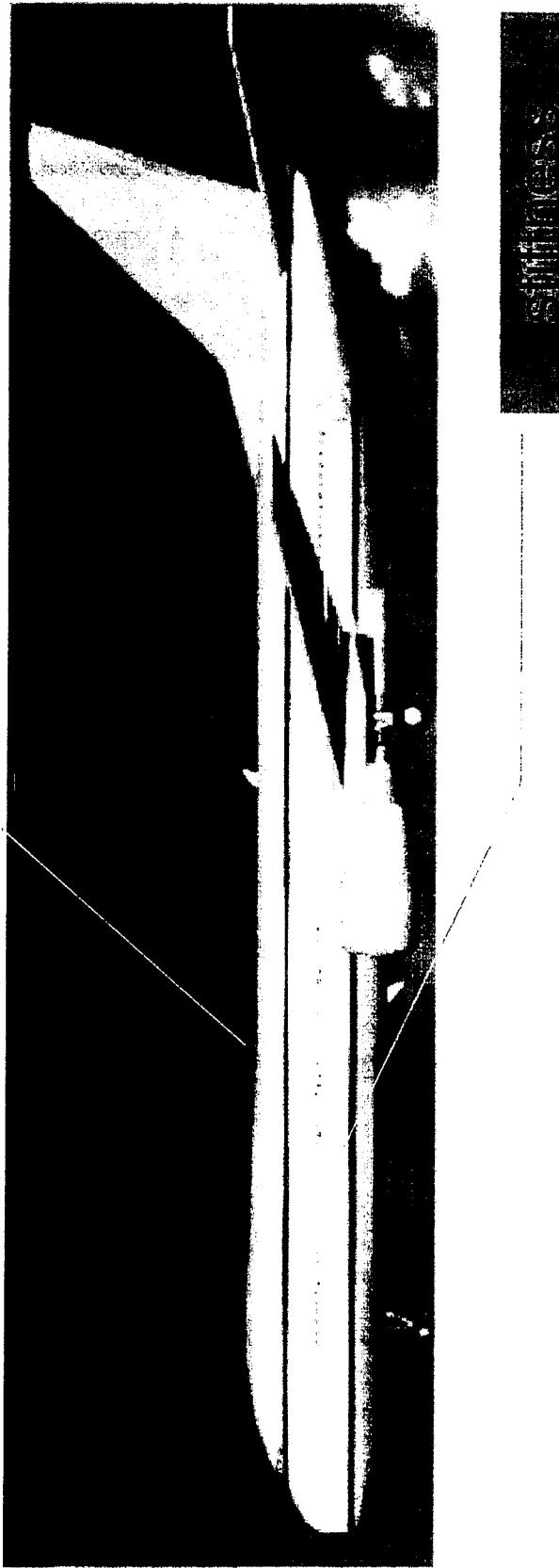


And hoop tension everywhere
(pressurisation)

Details (example)



compression





Current Skin Design Drivers

- > Tension → damage tolerance
 - Residual strength → toughness and TYS
 - Inspection interval → crack propagation
- > Compression and/or shear → stability in post-buckling
 - Skin crippling → Young's modulus and CYS
 - Skin tearing → UTS
 - Collapse → Young's modulus and CYS
- > Stiffness → design
- > Fatigue endurance → design





Sideneote: Stiffeners

- > High strength stringers available (7249, 7349, 7055)
- > TYS / CYS difference with 2x24 skin >200MPa / 30ksi
- > UTS difference with 2x24 skin ≈150MPa / 20ksi

- > High strength & toughness frames available (7040, 7050, 7475)
- > TYS / CYS difference with 2x24 skin ≈100MPa / 15ksi
- > UTS difference with 2x24 skin ≈30MPa / 4ksi

- > Skin = “weakest link”



Way to Weight Reduction

- > Skin = also largest weight
- > Tension
 - First: \uparrow toughness - esp. if welded (+ \uparrow TYS)
 - Next: \uparrow crack propagation resistance
- > Compression / shear
 - First: \uparrow CYS and UTS
 - Next: \uparrow crack propagation resistance



Requirements Advanced Skin

- > Room for at least 2 different optimisations
 - “Crown” : best in tension
 - “Belly” : best in compression and/or shear
- > Corrosion resistance
 - Esp. Belly
- > Weldability → used in aged temper
- > Age-formability
- > Stretch formability and insensitivity of final properties to stretching

Outline



- > Review of design drivers for fuselage skin
 - Load cases
 - Consequences for skin property requirements
- > Review of proposed skin solutions
 - Static properties
 - Damage tolerance properties
- > Perspectives

Fuselage sheets



> Alcan offer

Product	Underlying metallurgy	Main characteristics vs 2024			
		Strength (TYS)	Toughness	Corrosion resistance	Other properties
2056 T3 clad	Zn-containing Al-Cu-Mg-Mn alloy	=	+++	+	Improved formability
6156-T651	High strength/DT 6xxx	+	++	+	Weldable Age formable
B226 T8 bare	Al-Cu-Mg-Ag alloy	++	++	++	Weldable Age formable
2098 T6 bare	Al-Cu-Li alloy	+++	++	++	Weldable Age formable



Fuselage skin: 2056 cl T3

- > Brief description
 - High DT, Zn-containing Al-Cu-Mg-Mn alloy
 - Zn addition provides benefit in corrosion of lap joints

- > Status
 - Industrially ready
 - Full data package available
 - AMS draft spec submitted
 - AA registration under way
 - Composition registered
 - Temper / alclad request

	Cu	Mn	Mg	Zn	Fe	Si
Min	3.3	0.1	0.6	0.4	-	-
Max	4.3	0.5	1.4	0.8	0.12	0.1



Fuselage skin: 2056 cl T3

- > High DT with static ~ 2024
 - Standard 1050 cladding
 - 0.06" to 0.25"

2056 T351

Property	US units	
	L	LT
Ultimate Tensile UTS	66.8	63.6
Tensile Yield TYS	52.2	44.7
Compressive Yield CYS	19.3	22.3
Young's Modulus	10.3	
Fatigue Smax @ 10^5 cycles	15.6	

2024 T351

	US units	
	L	LT
Ultimate	64.0	64.0
Tensile	48.0	42.0
Yield	39.0	45.0
e (%)	12	
Typical	10.7	
Typical		
Typical		

	L-T	T-L	CCT 30"	B=0.126"	CCT 30"	B=0.195"
Kapp	138.1	125.6				



Fuselage skin: 6156 cl T6

- > Brief description
 - High strength/DT Al-Si-Mg-Cu-Mn alloy

- > Status

- Industrially ready
 - Data package available

- Industrial deliveries started

- AA registration

	Si	Cu	Mn	Mg	Zn	Fe
Min	0.7	0.7	0.4	0.6	0.1	-
Max	1.3	1.1	0.7	1.2	0.7	0.09

- Composition registered

- > Note: 6056 T78 for bare applications



Fuselage skin: 6156 cl T6

> High DT with TYS > 2024 std

Property	US units	
	L	LT

Ultimate Tensile UTS	54.0	54.4	Typical
Tensile Yield TYS	51.5	49.3	Typical
Compressive Yield CYS			Typical
e (%)	14.0	13.0	
Young's Modulus	10.0		
Fatigue Smax @ 10 ⁶ cycles	15.6		

	US units	
	L	LT

B value	64.0	64.0
B value	48.0	42.0
B value	39.0	45.0
A value	12	
	10.7	

	L-T	T-L
CCT 30"	118.7	93.7
B=0.126"		

	L-T	T-L
Kapp	133.6	11.6

CCT 30"
B=0.195"



Fuselage skin: B226 T8

- > Brief description
 - Ag-containing Al-Cu-Mg-Mn alloy in peak-aged temper
 - Ag enables additional strengthening in T8 temper favoring so-called Ω phase
- > Status
 - Industrial-scale production of several batches



Fuselage skin: B226 T8

- > High static and DT
 - Good corrosion: EXCO EA
 - Good FCGR performance

B226 T8X

Property	US units	
	L	T
Ultimate Tensile UTS	69.4	69
Tensile Yield TYS	64.4	62.4
Compressive Yield CYS		
e (%)	12.9	12.9
Young's Modulus	10.3	
Fatigue Smax @ 10 ⁵ cycles	25	

2024 T351

US units	
L	T
64.0	64.0
48.0	42.0
39.0	45.0
12	
10.7	

B value
B value
B value
A value

L-T	T-L
64.0	42.0
45.0	

CCT 30"
B=0.195"

L-T	T-L
118.7	93.7



Fuselage skin: 2098 T8

- > Brief description:
 - High strength, high DT Al-Cu-Li-Mg-Ag alloy
- > Status
 - Industrial production for military applications
 - Adjustment for specificities of different mill (transfer from McCook to Issoire)

	Cu	Mg	Li	Ag
Min	3.2	0.25	0.8	0.25
Max	3.8	0.8	1.3	0.6



Fuselage skin: 2098 T8

- > Main properties
 - Density 0.098 lbs/in³ (2024 0.1 lbs/in³)
 - Corrosion : Exco EA

2098 T8

Property	L	US units	L	T
Ultimate tensile UTS	82	81		
Tensile yield TYS	78	77		
Compressive yield CYS				
e (%)	10	10		
Young's modulus	11			
Fatigue Smax @ 10 ⁵ cycles				

2024 T351

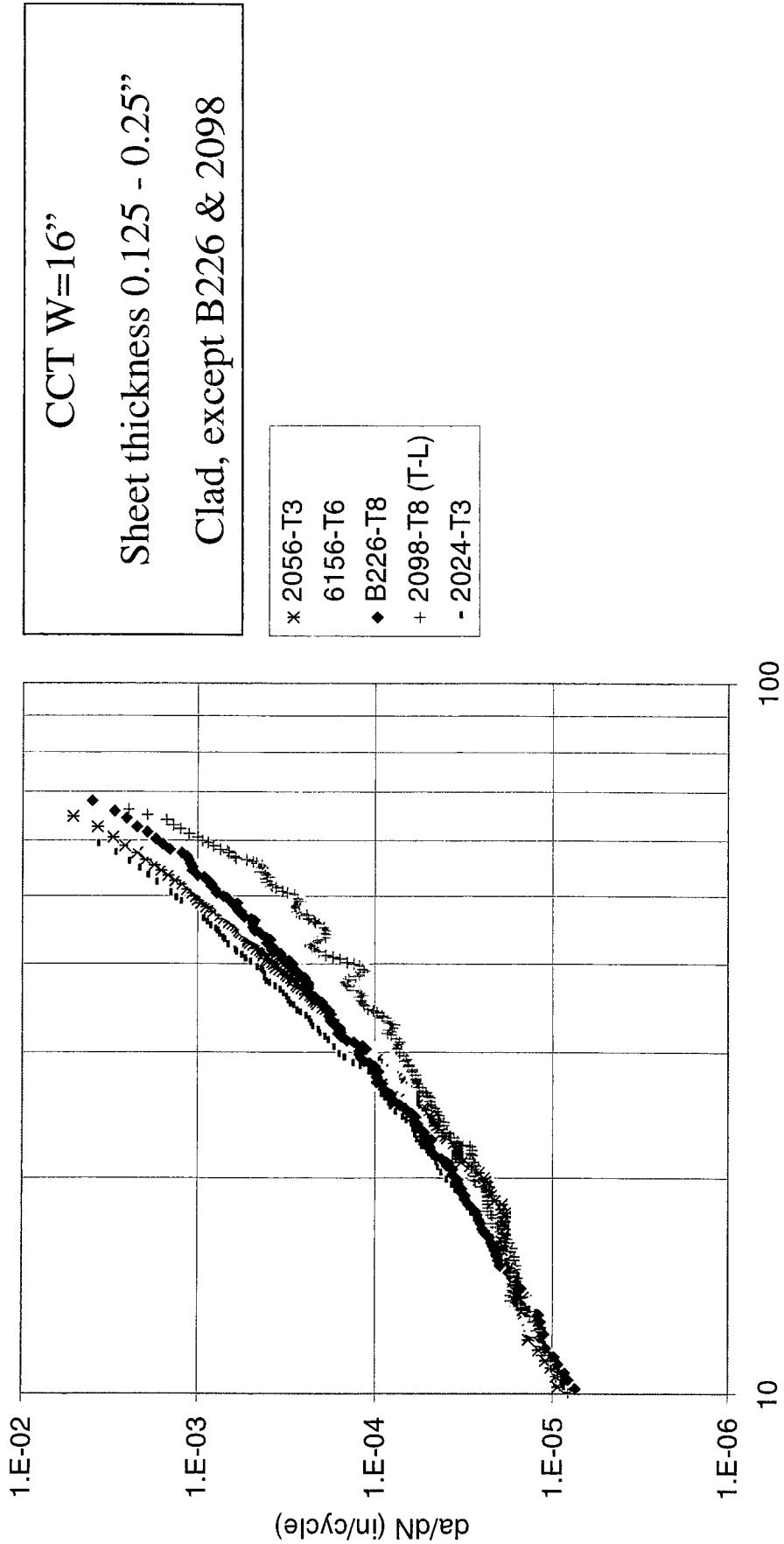
Property	L	US units	L	T
Ultimate tensile UTS	64.0	64.0		
Tensile yield TYS	48.0	42.0		
Compressive yield CYS	39.0	45.0		
e (%)	12			
Young's modulus	10.7			
Fatigue Smax @ 10 ⁵ cycles				

Property	L	US units	L	T
Ultimate tensile UTS	64.0	64.0		
Tensile yield TYS	48.0	42.0		
Compressive yield CYS	39.0	45.0		
e (%)	12			
Young's modulus	10.7			
Fatigue Smax @ 10 ⁵ cycles				

Property	L-T	US units	T-L	CCT 30"
Kapp	130	125	93.7	B=0.126"

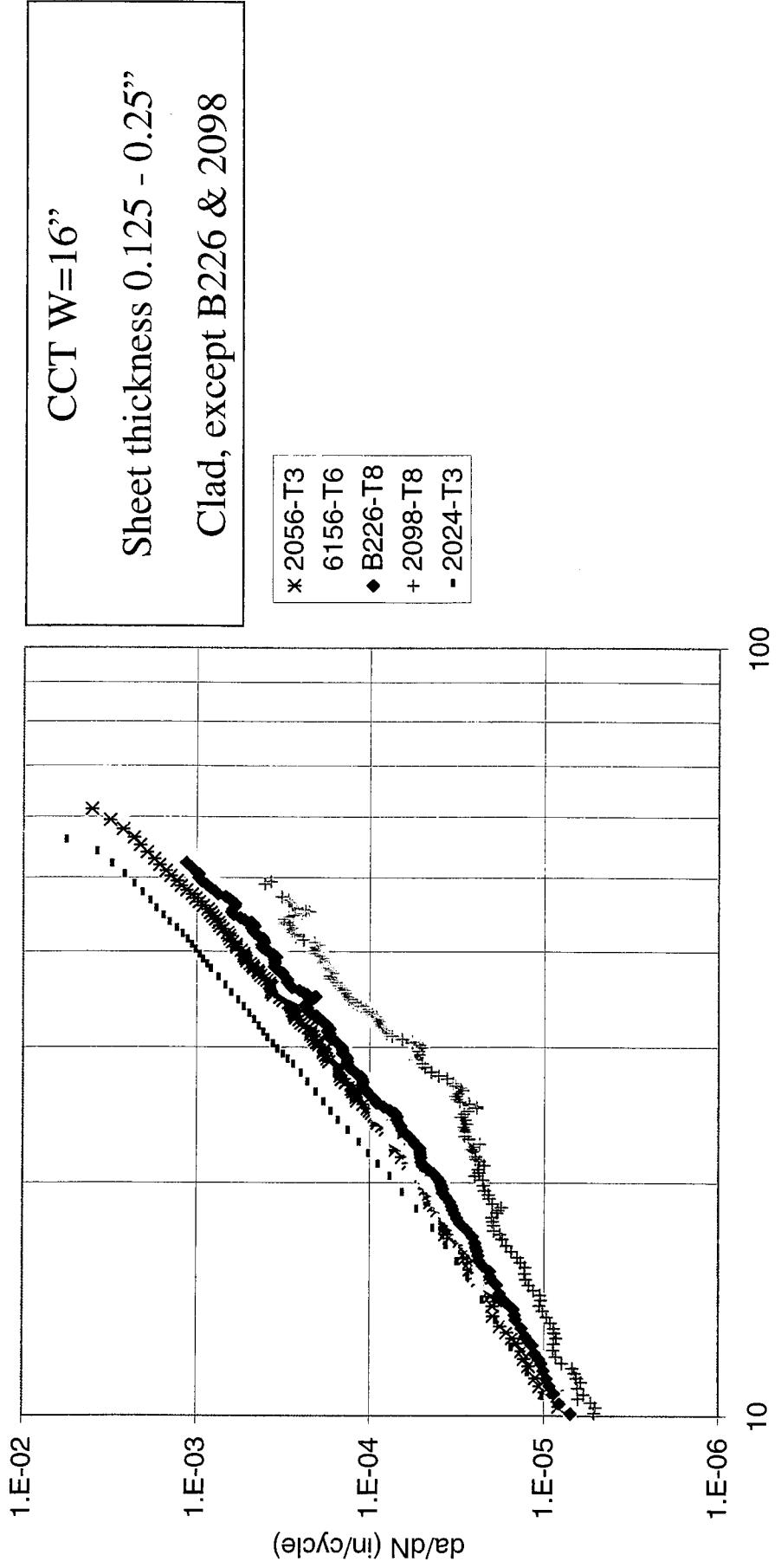


Fuselage skin: L-T crack growth



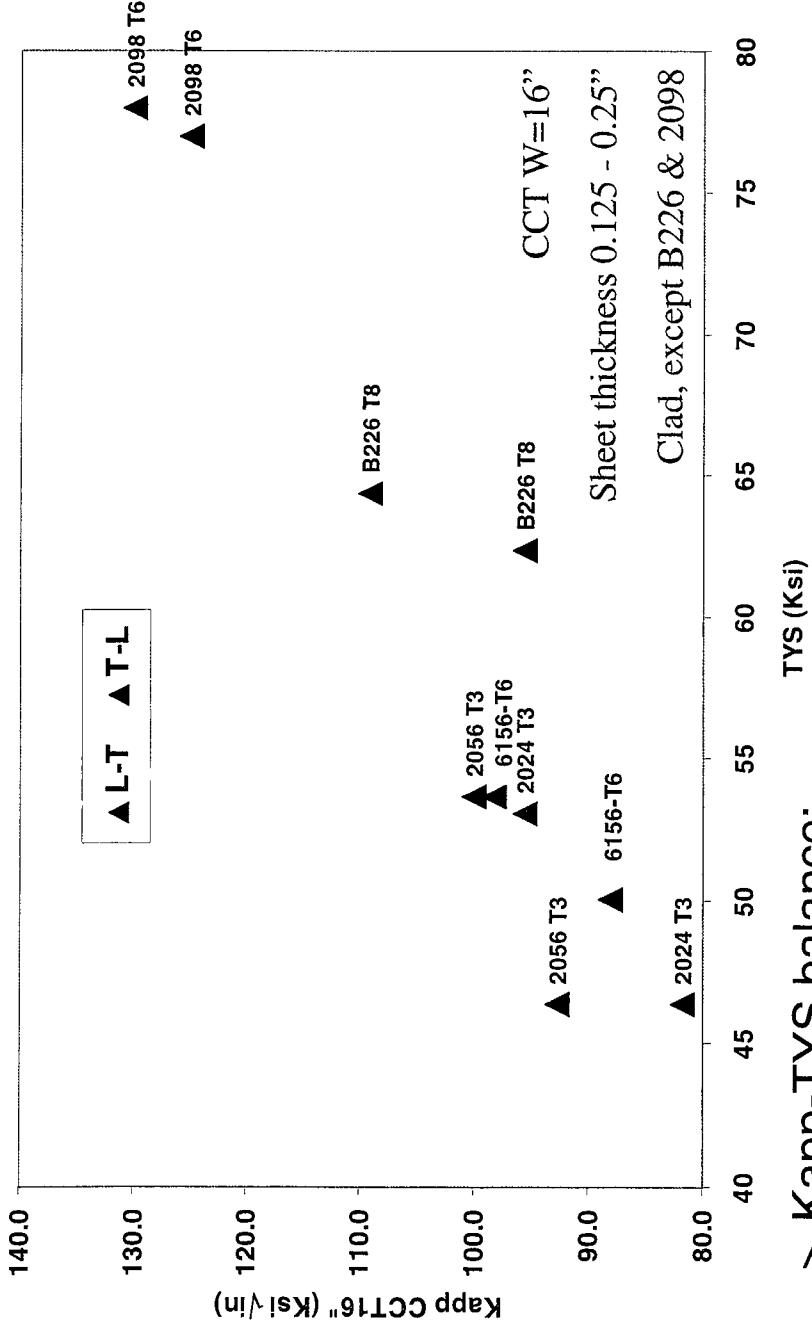


Fuselage skin : T-L crack growth





Fuselage skin: Summary



> K_{app} -TYS balance:

- 2098-T6 > B226 > 6156-T6 = 2056-T3 > 2024-T3
- NB: products have different shaped R-curves, K_{app} represents a useful performance indicator
 - Different solutions have associated technological specificities (weldability, formability, etc.) and different costs

Summary



- > Two sets of design drivers for fuselage skin:
 - “belly”: strength dominated
 - “crown”: toughness-dominated
- > Technological issues (weldability, formability, etc.) increasingly important
- > Alcan proposes different solutions that each have:
 - Different property balances
 - Associated technological specificities (weldability, formability, etc.) and different costs



Ideas for Further Weight Reductions

- > Tension
 - Controlled anisotropy
 - Selective reinforcement / bonding
 - Integrated crack retarders (cf. Ehrstrom et al, Aeromat 2004)

- > Compression / shear
 - Welded stiffeners
 - Bonded stiffeners
 - Selective reinforcement
 - Integrated features